

in Ireland south of Lat. 52°N.

There are still, in 1966, more than one thousand square miles of territory in the West Country which are unexplored entomologically—this in addition to the above-mentioned areas in the northern counties and excluding Wales. So perhaps it might be as well to keep an open mind on this interesting subject of Copper Butterflies in the West.

#### POSTSCRIPT

A few days ago, browsing on old back numbers of *Newman's Entomologist* I came across yet another large copper butterfly in South Devon. Here it is verbatim (*Newman's Entomologist*, No. 21, p. 312):—

*Supposed New British Butterfly.*—Having seen a very beautiful pair of butterflies this summer, and not being able to see any at all like them in any collection of British butterflies that I can meet with, I describe them, and should feel very glad to know what they are, and whether they are a well-known species. I saw them in a lane by the side of a wood in the south of Devonshire. One of them settled on a leaf close to me, so that I had an opportunity of looking at it for some time. It was a uniform red colour, nearly as bright as the red in *Vanessa Atalanta*, and had no spots, but appeared to be veined with black. If you can spare time to give me your opinion, I shall feel much obliged.—*Margaret Mallock, Bampton Speke, Exeter, September 26.*

To this Newman appended a note: "I scarcely dare venture an opinion: my correspondent appears to have written the word 'copper' after 'red,' but has drawn the pen through [it]: had it been allowed to stand I should have suggested that *Polyommatus Hippothoe* might have been the insect seen.—*Edward Newman.*"

This account of "a very beautiful pair of butterflies" seen in Devonshire in 1865 is interesting. Perhaps some reader can tell us something about 'Margaret Mallock,' who apparently was a collector (since she knew the Latin name of the Red Admiral) and was sufficiently interested in butterflies to write to a London editor about a species which she had not seen before and had not been able to identify.

## A Discography of Palearctic Insect Sound Recordings

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### INTRODUCTION

The purpose of this paper is to bring together a list of sound recordings of Palearctic insects commercially available on gramophone records. I can trace no records from beyond Europe, though I suspect there are some in Japan.

A comparable discography of bird sound recordings has already been published (Boswall, 1964, 1966); and one on amphibian sounds has been completed (Boswall, in press) as has a third on mammal noises.

The references are listed below alphabetically by recordists' surnames. The number given to each is used in the subsequent index of species which is arranged alphabetically by genera and species.

1. ANDRIEU, A.-J., and DUMORTIER, B. (1963): *Chants d'Insectes*. One 12-inch, 33.3 r.p.m. disc, No. LDP-E 7331-Med. Pacific, 20 bis, rue hours Philippe, Neuilly (Seine), France. 30 species.

No less than 4,000-odd words are printed on the sleeve accompanying this record. Besides providing "programme notes" to explain the content of the disc, they include a balanced, accurate and readable general account of insect acoustics. How, why, when and which insects sing are all discussed. A translation from the French by Mrs Anne Norris (nee Deane) has been deposited at the Department of Entomology, British Museum (Natural History), Cromwell Road, London, S.W.7.

*Side 1 Band 1* Wart biter (*Decticus verrucivorus*); Bush-cricket sp. (*Orphanina denticauda*); Woodland Grasshopper (*Omocestus ventralis* (= *rufipes*); Stripe-winged Grasshopper (*Stenobothrus lineatus*); Mottled Grasshopper (*Myrmeleotettix maculatus*); Grasshopper sp. (*Chorthippus biguttulus*).

*Side 1 Band 2* Common Field Grasshopper (*Chorthippus brunneus*); Grasshopper sp. (*Chorthippus montanus*); Roesel's Bush-cricket (*Metrioptera roeseli*); Bush-cricket sp. (*Metrioptera bicolor*); Bush-cricket sp. *Metrioptera abbreviata*); Bog Bush-cricket (*Metrioptera brachyptera*); Long-winged Cone-head (*Conocephalus fuscus* (= *discolor*); Wood-cricket (*Nemobius sylvestris*); Cricket sp. (*Pteronemobius heydeyni*); Common Ephippiger (*Ephippiger ephippiger*).

*Side 1 Band 3* Bush-cricket sp. (*Platycleis* sp.); Field Cricket (*Gryllus campestris*); Cricket sp. (*Gryllus* (= *Acheta desertus*); House Cricket (*Gryllus* (= *Acheta*) *domesticus*).

*Side 2 Band 1* Honey Bee (*Apis mellifica*); Humble-bee (*Bombus* sp.); Death's-head Hawk-moth (*Acherontia atropos*); Mosquito sp. (*Colex* sp.)

*Side 2 Band 2* The Great Green Bush-cricket (*Tettigonia viridissima*); Bush-cricket sp. (*Tettigonia cantans*).

*Side 2 Band 3* Bush-cricket sp. (*Barbitistes fischeri*); Dark Bush-cricket (*Pholidoptera griseoptera*); Bush-cricket sp. (*Uromenus rugosicollis*); Bush-cricket sp. (*Homorocoryphus nitidulus*); Common Tree-cricket (*Oecanthus pellucens*).

2. RAGGE, D. R., BURTON, J. F. and WADE, G. F. (1965): *Songs of the British Grasshoppers and Crickets*. One 7-inch, 33.3 r.p.m. disc, No. 16108-9. Frederick Warne & Co. Ltd., 1-4 Bedford Court, Bedford Street, London, W.C.2.

*Side 1 Band 1* Great Green Bush-cricket (*Tettigonia viridissima*); Wart-biter (*Decticus verrucivorus*); Dark Bush-cricket (*Pholidoptera griseoptera*); Grey Bush-cricket (*Platycleis denticulata*).

*Side 1 Band 2* Bog Bush-cricket (*Metrioptera brachyptera*); Roesel's Bush-cricket (*Metrioptera roeselii*); Short-winged Cone-head (*Onocephalus dorsalis*); Long-winged Cone-head (*Conocephalus discolor*).

*Side 1 Band 3* Wood-cricket (*Nemobius sylvestris*); Field Cricket (*Gryllus campestris*); Field-cricket—Courtship song.

*Side 2 Band 1* Large Marsh Grasshopper (*Stethophyma grossum*)—three songs; Stripe-winged Grasshopper (*Stenobothrus lineatus*)—two songs. Stripe-winged Grasshopper—courtship song; Lesser Mottled Grasshopper (*Stenobothrus stigmaticus*)—three songs.

Side 2 Band 2 Common Green Grasshopper (*Omocestus viridulus*)—two songs; Woodland Grasshopper (*Omocestus rufipes*); Common Field Grasshopper (*Chorthippus brunneus*)—two songs; Heath Grasshopper (*Chorthippus vagans*)—two songs.

Side 2 Band 3 Meadow Grasshopper (*Chorthippus parallelus*)—three songs; Lesser Marsh Grasshopper (*Chorthippus albomarginatus*)—two songs; Lesser Marsh Grasshopper—courtship song; Rufous Grasshopper (*Gomphocerippus rufus*)—two songs; Mottled Grasshopper (*Myrmeleotettix maculatus*)—two songs.

3. RIBASSIN, P. (1961): *Les Voix de la Nuit*. One 7-inch, 45 r.p.m. disc, No. LVB 1. 'La Vie des Bêtes', 49 Avenue Iena, Paris 16e.

Side A: Mole Cricket (*Gryllotalpa gryllotalpa*); Field Cricket (*Gryllus campestris*).

4. RIBASSIN, P. (1961): *Francis de la Nuit*. One 7-inch, 33.3 r.p.m. disc, No. CLA. 1009. Clartes, 6 rue des Capucines, Paris 2e.

Side A: Wart-biter (*Decticus verrucicorus*).

Side B: Mole Cricket (*Gryllotalpa gryllotalpa*); Common Tree-cricket (*Oecanthus pellucens*); Field Cricket (*Gryllus campestris*).

5. ROCHÉ, JEAN-CLAUDE and CELIA (1962): *Paysages d'Oiseaux*. One 10-inch, 33.3 r.p.m. disc, No. LDP-B 2305. Pacific, 20 bis, rue Louis Philippe, Neuilly (Seine), France. Distributed in Britain by Rare Records Ltd., 5-7 Barton Square, Manchester.

Side A: Mole Cricket (*Gryllotalpa gryllotalpa*).

6. ROCHÉ, JEAN-CLAUDE (1965): *Guide Sonore du Naturaliste. I Insectes*. One 7-inch, 45 r.p.m. disc. Obtainable from: J.-C. Roché, La Maliere, Collobrieres, (Var), France.

Side A: Field Cricket (*Gryllus campestris*); House Cricket (*Gryllus domesticus*); Common Tree-cricket (*Oecanthus pellucens*); Cricket sp. (*Acheta burdigalensis*); Cricket sp. (*Eugryllodes pipiens*).

Side B: White-fronted Wart-biter (*Decticus albifrons*); Great Green Bush-cricket (*Tettigonia viridissima*); Mole Cricket (*Gryllotalpa gryllotalpa*); Bush-cricket sp. (*Ephippigiger cruciger*); Cicada sp. (*Lyristes plebeja*); Cicada sp. (*Cicada orni*).

7. TRABER, HANS (1954): *Tierstimmen*. One 10-inch, 78 r.p.m. disc, No. 10. Obtainable from: Hans Traber, Frohburgstrasse 46, Zurich 6, Switzerland.

Side 1: Field Cricket (*Gryllus campestris*); House Cricket (*Gryllus domesticus*).

Side 2: Mole Cricket (*Gryllotalpa gryllotalpa*); Grasshopper sp. (*Acrididae* sp.); Common Cicada (*Cicada plebeja*).

8. TRABER, HANS (1958): *So Singen Unsere Vogel*. One-7-inch, 33.3 r.p.m. disc, No. 14. Obtainable from: Hans Traber, Frohburgstrasse 46, Zurich 6, Switzerland.

Field Cricket (*Gryllus campestris*).

9. TRABER, HANS (1960): *Tierstimmen*. One 7-inch 33.3 r.p.m. disc, No. 22. Obtainable from Hans Traber, Frohburgstrasse 46, Zurich 6, Switzerland.

Side B: Field Cricket (*Gryllus campestris*); House Cricket (*Gryllus*

*domesticus*); Mole Cricket (*Gryllotalpa gryllotalpa*); Grasshopper sp. (*Acrididae* sp.); Common Cicada (*Lyristes plebeja*).

## CROSS-INDEX OF SPECIES

<i>Acherontia atropos</i> Death's-Head Hawk-moth	.. .. .	1
<i>Acheta burdigalensis</i> Cricket sp.	.. .. .	6
<i>Apis mellifica</i> Honey Bee	.. .. .	1
<i>Barbitistes fischeri</i> Bush-cricket sp.	.. .. .	1
<i>Bombus</i> sp. Humble-Bee sp.	.. .. .	1
<i>Chorthippus albomarginatus</i> Lesser Marsh Grasshopper	.. .. .	2
<i>Chorthippus biguttulus</i> Grasshopper sp.	.. .. .	1
<i>Chorthippus brunneus</i> Common Field Grasshopper	.. .. .	1, 2
<i>Chorthippus montanus</i> Grasshopper sp.	.. .. .	1
<i>Chorthippus parallelus</i> Meadow Grasshopper	.. .. .	2
<i>Chorthippus vagans</i> Heath Grasshopper	.. .. .	2
<i>Cicada orni</i> ( <i>Cicada</i> sp.)	.. .. .	6
<i>Conocephalus discolor</i> (= <i>fuscus</i> ) Long-winged Cone-head	.. .. .	1, 2
<i>Conocephalus dorsalis</i> Short-winged Cone-head	.. .. .	2
<i>Culex</i> sp. Mosquito sp.	.. .. .	1
<i>Decticus albifrons</i> (White-fronted Wart-biter)	.. .. .	6
<i>Decticus verrucivorus</i> Wart-biter	.. .. .	1, 2, 4
<i>Ephippiger eruciger</i> , Bush-cricket sp.	.. .. .	6
<i>Ephippiger ephippiger</i> Common Ephippiger	.. .. .	1
<i>Eugryllodes pipiens</i> Cricket sp.	.. .. .	6
<i>Gomphocerippus rufus</i> Rufous Grasshopper	.. .. .	2
<i>Gryllotalpa gryllotalpa</i> Mole Cricket	.. .. .	3, 4, 5, 6, 7, 9
<i>Gryllus campestris</i> Field Cricket	.. .. .	1, 2, 3, 4, 6, 7, 8, 9
<i>Gryllus</i> (= <i>Acheta</i> ) <i>desertus</i> Cricket sp.	.. .. .	1
<i>Gryllus</i> (= <i>Acheta</i> ) <i>domesticus</i> House Cricket	.. .. .	1, 6, 7, 9
<i>Homorocoyphus nitidulus</i> Bush-cricket sp.	.. .. .	1
<i>Lyristes plebeja</i> Cicada sp.	.. .. .	6, 7, 8
<i>Metrioptera abbreviata</i> Bush-cricket sp.	.. .. .	1
<i>Metrioptera bicolor</i> Bush-cricket sp.	.. .. .	1
<i>Metrioptera brachyptera</i> Bog Bush-cricket	.. .. .	1, 2
<i>Metrioptera roeselii</i> Roesel's Bush-cricket	.. .. .	1, 2
<i>Myrmeleotettix maculatus</i> Mottled Grasshopper	.. .. .	1, 2
<i>Nemobius sylvestris</i> Wood-cricket	.. .. .	1, 2
<i>Oecanthus pellucens</i> Common Tree-cricket	.. .. .	1, 4, 6
<i>Omocestus rufipes</i> (= <i>ventralis</i> ) Woodland Grasshopper	.. .. .	1, 2
<i>Omocestus viridulus</i> Common Green Grasshopper	.. .. .	2
<i>Orphania denticauda</i> Bush-cricket sp.	.. .. .	1
<i>Pholidoptera denticulata</i> Grey Bush-cricket	.. .. .	2
<i>Pholidoptera griseoptera</i> Dark Bush-cricket	.. .. .	1, 2
<i>Platypleura</i> sp. Bush-cricket sp.	.. .. .	1
<i>Pteronemobius heydeyni</i> Cricket sp.	.. .. .	1
<i>Stenobothrus lineatus</i> Stripe-winged Grasshopper	.. .. .	1, 2
<i>Stenobothrus stigmaticus</i> Lesser Mottled Grasshopper	.. .. .	2
<i>Stethophyma grossum</i> Large Marsh Grasshopper	.. .. .	2
<i>Tettigonia cantans</i> Bush-cricket sp.	.. .. .	1
<i>Tettigonia viridissima</i> Great Green Bush-cricket	.. .. .	1, 2, 6
<i>Uromenus rugosicollis</i> Bush-cricket sp.	.. .. .	1

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recordings". *British Journal of Herpetology*.

## Butterflies of New Providence Island, Bahamas

By B. K. WEST

(continued from p. 179)

## HELICONIIDAE

20. *Heliconius charitonius* L. New record. My sojourn on the island was nearing completion when on February 16th, 1946, I saw and caught one of these graceful zebra striped Heliconiids in a woodland glade on a private estate to the West of Lake Cunningham. No more were noticed that day, but during subsequent visits to the spot about a dozen more were seen, though no more after mid-March. None was seen elsewhere. My specimens seem identical with those from Florida, having the yellow bands extremely narrow, thus belonging to subspecies *tuckeri* Comstock & Brown.  
Range Colombia to Gulf Coast of U.S.A.
21. *Dryas julia carteri* N. D. Riley. Rather local, but I found several colonies in clearings alongside the Interfield Road; the butterflies were easy to capture as they visited flowers. Their behaviour here was in complete contrast to those I endeavoured to net in Trinidad in August 1965, where the local race usually defied capture by their fast and high flight and brief attendance at flowers.  
Range: Argentine to the Gulf Coast of U.S.A.
22. *Agraulis vanillae insularis* N. D. Riley. One of the commonest butterflies, especially in open spaces with a profusion of flowers.  
Range: Argentine to U.S.A.

## NYMPHALIDAE

23. *Euptoieta hegesia hegesia* Cram. Common in clearings, visiting flowers in company with the more numerous *A. vanillae*.  
Range: Argentine to Texas.
24. *Phycioides frisia frisia* Poey. Much less numerous than the two preceding species, and found in small colonies, in and near open spaces. Several colonies were found on Oakes Field, but the best was beside the road at the eastern extremity of the island.  
Range: Colombia to Texas and Florida.